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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,794	09/30/2003	Hua-Jun Zeng	MCS-042-03	8378
27662 7590 10/14/2008 MICROSOFT CORPORATION C/O LYON & HARR, LLP 300 ESPLANADE DRIVE SUITE 800 OXNARD, CA 93036				
EXAMINER FLEURANTIN, JEAN B				
ART UNIT 2162		PAPER NUMBER		
MAIL DATE 10/14/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/676,794

**Applicant(s)**

ZENG ET AL.

**Examiner**

JEAN B. FLEURANTIN

**Art Unit**

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-32, 34, 38-42, 44 and 47-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-32, 34, 38-42, 44 and 47-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This is in response to Applicant(s) arguments filed on 06/18/2008.

The following is the current status of claims:

Claims 1-28, 33, 35-37, 43, 45, and 46 have been canceled.

Claims 29-32, 34, 38-42, 44 and 47-63 remain pending for examination.

### ***Response to Arguments***

- I. Applicant's arguments filed 06/18/2008, with respect to the pending claims have been fully considered but they are not persuasive for the following reasons, see sections I (response to arguments) and II (repeated rejections).

Applicant's arguments, with respect to the 35 USC 101 rejections of claims have been fully considered but they are not persuasive. Because the amendments do not overcome the rejections of claims. The Examiner maintains the previous rejections.

Applicant's arguments, with respect to the 35 USC 103(a) rejections of claims have been fully considered and are persuasive. The 35 USC 103(a) rejections of claims 29-32, 34, 38-42, 44 and 47-54 have been withdrawn.

However, claims 55-63, the 35 U.S.C. §103(a) rejections remain set forth in section II.

In response to applicant's argument that "... the combination of Page et al. and Pei et al. also fails to appreciate or recognize the advantages of the Applicants' claimed features recited in amended independent claim 55, of extracting implicit links from user access log..." The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the instant application relates to computer search engines and more particularly to an implicit links enhancement system and method for search engines that generates

implicit links obtained from mining user access logs to provide accurate and efficient local searching of web sites and intranets; see specification 1, lines 20-24.

Accordingly, Page discloses diversity of web page, ranking for every page on the web, link structure of the web and computing page rank; see pages 1-7.

Pei discloses mining access patterns efficiently from web logs; see sections 3 and 4. Therefore, the combination of Page in view Pei discloses the claimed invention.

Moreover, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

It is noted, that during patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification" Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In *re Prater*, 162 USPQ 541,550-51 (CCPA 1969). The court found that applicant was advocating ... the impermissible importation of subject matter from the specification into the claim. See also *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definition or otherwise that may be afforded by the written description contained in application's specification.") MPEP 2111.

The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In *re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

For the above reasons, it is believed that the last Office Action dated 03/18/2008 was proper. Therefore, the rejection is maintained.

***Claim Rejections - 35 USC § 101***

**35 U.S.C. 101 reads as follows:**

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29-32, 34, 38-42, 44 and 47-63 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As set forth in **MPEP 2106**:

As per independent claim 29

The independent claim 29 is directed to a computer-readable "*medium*", which re-ranking search results. The claimed steps are not being performed by any form of computer hardware component. Therefore, the mechanism for re-ranking, a linear combination of a position of a page in two lists, sorted by similarity as the purpose of the invention. The claimed, "*medium*" fails to fall with one of four statutory categories of invention, process, machine, manufacture and composition, and is software per se.

Moreover, applicant specification, describes "medium" as a program modules or other data in a modulated data signal such as a carrier wave or other transport mechanism and includes any information delivery media., in page 14, lines 27-30.

As per independent claim 55

The independent claim 55 is directed to search enhancement system, which generating ordered pairs. The claimed steps are not being performed by any form computer hardware component. Therefore, the mechanism for re-ranking, a linear combination of a position of a page in two lists, sorted by similarity as the purpose of the invention. The claimed, "*system*" fails to fall with one of four statutory categories of invention, process, machine, manufacture and composition, and is software per se.

The dependent claims are rejected under the same rational.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 55-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over "The Page Rank Citation Ranking: Bringing Order to the Web - 1998" Issued to Page et al., ("Page") in view of "Mining Access Patterns Efficient from Web Logs - 2000" issued to Pei et al., ("Pei"), both submitted by the Applicant.

As per claim 29, Page discloses "an implicit links search enhancement system for an enhancing initial search results obtained from a search engine by mining a user access log" (i.e., implemented a search engine, web pages; see page 9, para 2, sections 5 and 5.1) comprising;

"general-purpose computing device" (a typical workstation; see page 7, para 3.1);

a computer program comprising program modules executable by the general-purpose computing device" (i.e., converting, storing, and removing links in a typical workstation; see page 7, para 3.1), the computer program further comprising:

"an update module that updates an implicit links graph using the ordered pairs" (i.e., see page 6, para 2, sections 2.6 and page 9, para 2, section 5.1);

"a re-ranking module that re-ranks the initial search results based on a modified link analysis technique to generates enhanced search results" (i.e., re-ranking search results; see page 10, Table 1, sections 5.2, 5.3 and 5.4); and

"a display device in communication with the general-purpose computing device on which the enhanced search results are displayed" (i.e., resulting page rank; see page Table 2).

Page fails to explicitly disclose an ordered pairs generator that extracts implicit links from the user access log and generates ordered pairs of the extracted implicit links. However, Pei discloses an

Art Unit: 2162

ordered pairs generator that extracts implicit links from the user access log and generates ordered pairs of the extracted implicit links (see Pei page 396, pp 1 - section introduction & page 397, pp 2 & table 1). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Page by user access log as disclosed by Pei (see Pei page 400, pp 3). Such a modification would allow the method of Page to provide efficiently mining web access from large set of pieces of web log (see Pei page 397, last pp), therefore, improving the accuracy of the implicit links search enhancement system and method for search engines using implicit links generated by mining user access patterns.

As per claim 56, in addition to claim 55, Page fails to explicitly disclose user access log. However, Pei discloses an ordered pairs generator that extracts implicit links from the user access log and generates ordered pairs of the extracted implicit links (see Pei page 396, pp 1 - section introduction & page 397, pp 2 & table 1). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Page by user access log as disclosed by Pei (see Pei page 400, pp 3). Such a modification would allow the method of Page to provide efficiently mining web access from large set of pieces of web log (see Pei page 397, last pp), therefore, improving the accuracy of the implicit links search enhancement system and method for search engines using implicit links generated by mining user access patterns.

As per claim 57, the limitations of claim 57 are similar to claim 56, therefore, the limitations of claim 57 are rejected in the analysis of claim 56, and this claim is rejected on that basis.

As per claim 58, the limitations of claim 58 are similar to claim 56, therefore, the limitations of claim 58 are rejected in the analysis of claim 56, and this claim is rejected on that basis.

As per claim 59, Page further discloses "a filter module that removes any infrequently occurring ordered pairs" (see page 6, para 3 and page 14, last para, session 7.3).

As per claim 60, Page further discloses "the a modified link analysis technique includes a modified re-ranking formula and at least one re-ranking technique" (see page 3, para 2.4).

As per claim 61, Page discloses "the modified re-ranking formula is modified by using a random walk technique and a probability parameter" (see page 3, para 2.4 and figure 2).

As per claim 62, Page further discloses "comprising an order-based re-ranking technique" (see page 7, para 3.1).

As per claim 63, Page further discloses "comprising a score-based re-ranking technique" 9 see page 10, Table 1, sections 5.2, 5.3 and 5.4).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



**CONTACT INFORMATION**

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is (571)272-4035. The examiner can normally be reached on 10:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E. BREENE can be reached on 571 - 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEAN B. FLEURANTIN/  
Primary Examiner, Art Unit 2162